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**Małgorzata Markiewicz, Marta  
Dekhtiarchuk, Urban Górski**

**Monetary Policy in Ukraine in 1996–1999**

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CASE – Center for Social and Economic Research  
ul. Sienkiewicza 12, 00-944 Warsaw, Poland  
tel.: (4822) 622 66 27, 828 61 33, fax (4822) 828 60 69  
e-mail: [case@case.com.pl](mailto:case@case.com.pl)

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**Małgorzata Markiewicz**

**Research Assistant**

**at CASE – Center for Social and Economic Research**

*The author graduated from the Warsaw University, Department of Economic Sciences. She was involved in different projects about transition economies: in 1995 in Ukraine, from 1996 to 1998 in Kyrgyzstan, in 1997 in Georgia. Now she is working in Ukraine as the economist in HIID/CASE Ukraine Macroeconomic Reform Program.*

**Martha Dekhtiarchuk**

**Junior Researcher**

**at CASE – Center for Social and Economic Research**

*Obtained M.A. in Economics from Kiev-Mohyla Academy, Ukraine.*

**Urban Górski**

**Junior Researcher**

**at CASE – Center for Social and Economic Research**

*The author has been cooperating with CASE foundation since the beginning of 1997. He obtained Master's Degree in International Economics at Sussex University in 1996 and is currently working on his Master's thesis at Warsaw University. Since January 1997, the author has been also involved in advising the Ukrainian government and the National Bank of Ukraine, first in the Soros International Economic Advisory Group (SIEAG) and recently under the USAID Ukraine Macroeconomic Reform Program. The main area of interest covers macroeconomic policy of transition economies, in particular monetary and exchange rate policy issues.*

## **Abstract**

After hyperinflationary developments in 1993 the inflation rate was controlled and decreased to the level of about 10% in 1997 and 20% in 1998. Inflationary consequences of 1998 crisis were lower than one could expect. It proves the thesis about proper crisis management in Ukraine. Inflationary and banking sector problems were limited, although domestic currency devalued by 80% in 1998.

This paper examines the profile of monetary policy conducted in Ukraine since the introduction of the new domestic currency – hryvnia. In the light of events at the end of 1997 (financial crisis in South-East Asian countries) and in August 1998 (financial crisis in Russia) the monetary policy had to be extremely flexible to preserve the financial stability. This paper also presents from the historical perspective how economic problems were accumulated eventually leading to the financial crisis.

The analysis concludes the following: sources of Ukraine financial problems were mostly internal, crisis in Russia (the main trade partner) was only accelerating some processes, not causing them; the basic reason behind the financial crisis in Ukraine was unsustainable policy mix. As the monetary policy could be evaluated as tight, the fiscal policy was mostly expansionary.

Evaluating the monetary policy in the context of existing legal framework and fiscal policy pressure we could say that the price stability has been preserved. As the fiscal problems are not solved and the banking sector is weak and underdeveloped, a new wave of financial crisis is still possible. Consequently, the fiscal reform is a must for Ukraine.

# **I. Introduction**

This paper examines the profile of monetary policy conducted in Ukraine since the introduction of the new domestic currency – hryvnia. In the light of events at the end of 1997 (financial crisis in South-East Asian countries) and in August 1998 (financial crisis in Russia) the monetary policy had to be extremely flexible to preserve the financial stability, which had been already achieved. After hyperinflationary developments in 1993 the inflation rate was controlled and decreased to the level of about 10% in 1997 and 20% in 1998. Inflationary consequences of 1998 crisis were lower than one could expect. It proves the thesis about proper crisis management in Ukraine. Inflationary and banking sector problems were limited, although domestic currency devalued by 80% in 1998.

However, we wanted to show that sources of Ukraine financial problems were mostly internal. Crisis in Russia (the main trade partner) was only accelerating some processes, not causing them. This paper presents from the historical perspective how economic problems were accumulated eventually leading to the financial crisis.

The paper is structured as follows. Chapter 2 presents some basic legal limitations in monetary policy. Chapter 3 presents a reconstruction of Ukraine meltdown, from the period of introduction of hryvnia to the crisis eruption in 1998. The short overview of monetary policy instruments is presented in Chapter 4. Strategy of the exchange rate policy is discussed and evaluated in the next part. Chapter 6 singles out key points in the banking sector developments setting them in the macroeconomic framework. The final section outlines a few open issues in assessing sources and management of crisis.

# **2. Legal Framework**

The legal status, organizational structure and main activities of the National Bank of Ukraine (NBU) are described in the Constitution of Ukraine, in the Statutes of the NBU and in the law "On banks and banking activity" adopted in 1991. The last regulation needs to be improved, and the draft of law "On the NBU" was prepared and submitted to the Parliament in 1996. Nevertheless, this draft was not discussed by the Parliament and is still waiting for better times. Besides that, in December 1998, the new law "On the NBU Council" was prepared by a group of Parliamentarians and submitted to the Parliament for consideration.

The proposed law includes creation of a council to formulate, implement and supervise monetary policy. This new structure of monetary policy management would be independent from the NBU and the government. The aim of this legislative initiative is to

remove the independent policy making functions from the NBU. The proposed council would determine whether financial resources would be directed to the economy, what actually means the control over credit expansion (emission). The proposed law is in conflict with the Ukraine's constitution, is inconsistent with the goal of market oriented system. This is an attempt to exclude the task of council' creation from the Law on the NBU, to adopt it separately and take control over the monetary policy formulation. Since August 1998, when the financial crisis in Russia began, and the turmoil started spreading over Ukraine, the monetary policy of the NBU has been often criticized in public by the Presidential Administration, the Parliament and Government representatives. The question of governor dismissal was also raised. The legal position of the NBU and the governor is weak and the law on the NBU needs to be adopted. Until then, the NBU position will be exposed to political attacks, and the main objective of monetary policy (which in compliance with the Constitution is price stability) will be raised and discussed.

### 3. Overview of Monetary Policy

A history of macroeconomic stabilization policy in Ukraine is difficult and provides mostly with monetary policy measures. The main problem was weak consistency between fiscal and monetary policy. On the fiscal side the progress in decreasing the budget deficit was undermined by accumulation of government debt and arrears at each level of public sector (Table 1).

**Table 1. Basic Indicators**

	1992	1993	1994	1995	1996	1997	1998
Budget deficit in % of GDP	-13.8	-5.1	-8.9	-6.6	-4.9	-6.7	-2.0
Budget expenditures in % of GDP	38.4	38.6	52.4	44.6	41.9	37.1	29.4
MB*					38	45	22
M0*					54	51.7	16.7
M2*					45	38	24
CPI		10199	401	181.6	39.7	10.1	20.4

\* annual dynamic (%)

The main reason behind fiscal contraction was reduced availability of financing from abroad, rather than fiscal reform and reduction of expenditures. The high share of government spending in GDP (29.4% GDP in 1998) reflected a budget with extensive redistributive functions and mirrored insufficient administrative and enterprise reforms. The budget is still dominated by social expenditures and subsidies to enterprises and households. In such environment monetary policy has not achieved sufficient support from the fiscal side.

At the first glance, effectiveness of monetary policy measured by price stability was surprisingly high. However, dynamics of monetary aggregates give little clue as to sources of instability, demonstrated by August 1998 crisis. As shown in Chart 1, growth in monetary base and broad money does not conform to a pattern that could explain the low volatility of inflation and the exchange rate before the 1998 crisis.

### **3.1. Recovery**

Throughout 1996 and early 1997 the monetary authorities pursued a relatively tight monetary policy compared to the previous years. In 1996 domestic credit and broad money expansion were limited: the monetary base increased by 38% and the broad money by 45%. In 1997 these rates were equal to 45% and 38% respectively. Limited credit expansion together with slow remonetization of the economy contributed to the relatively low rate of inflation. The prices rose by 39.7% in 1996 and by 10.1% in 1997. In 1996 and in the first half of 1997 two factors contributed to the relatively low rate of credit expansion. First, the consolidated budget deficit fell from 6.6% in 1995 to 4.9% in 1996 and 4.6% in the first half of 1997 (although the 1997 budget was not approved until late June 1997). Second, development of government security market, expectations that the parliament will adopt the reform package and high yields on T-bills strengthened the non-residents' interest in this market. While T-bills allowed the NBU to limit direct credit expansion, the inflow of portfolio investment put additional pressure on hryvnia. These investments led to significant net purchases of the foreign exchange by the NBU in order to prevent a serious appreciation of hryvnia. The inflow of foreign portfolio investments was partly sterilized, but in general the reserve money was allowed to grow in line with growth of foreign assets (Chart 2).

The years of 1996 and 1997 witnessed a low correlation between the money growth and prices. This signifies the gradual increase in money demand. There are several explanations accounting for such money demand growth [Dekhtiarчук, 1998]. First, in September 1996 the new currency – hryvnia – was introduced. The non-confiscatory



character of this reform proved to be a vital contribution to strengthen the confidence in national currency. The decrease in the dollarization ratio (ratio of deposits in foreign currency to all deposits) from 28.5% in 1996 to 25.6% in 1997 confirms the above thesis. Second, the demand for hryvnia increased among foreign investors buying Ukrainian T-bills. Third, the confidence of citizens in the banking system has strengthened demonstrated by increase in households' deposits in national currency. Fourth, the real income of the population increased. Finally, inflationary expectations also declined. In September 1997, the ratio of monetary aggregate M2 to the nominal GDP was 10.4% as compared to 8.1% one year earlier.

However, the increase in money demand was smaller than could have been expected given the sharp decline in inflation and the strong nominal exchange rate. The factors behind limited money demand growth are demand for various forms of surrogate money, such as promissory notes, and widespread use of barter (the volume of barter operations increased from 30% of total sale of industrial goods in 1997 to 43% in 1998).

The increase in money demand was predominantly transaction-based and confined mainly to currency in circulation. In 1996 currency in circulation rose by 54% comparing to the broad money growth by 45%. In 1997 these numbers were equal to 52% and 38% respectively. The money multiplier decreased from 1.85 in 1996 to 1.76 in 1997. The money multiplier change was caused by accelerated demand for cash balances, what could be the result of growing activity in the shadow economy. The percentage share of M0 in M2 was equal to 30% in 1994 and gradually grew to 42.1% in the end of 1995, 44.8% in the end of 1996, 49.3% in 1997 and 46.4% in 1998. This ratio proves the relatively low level of banking sector credibility and persistence of high inflationary expectations. As the result the money multiplier decreased and the risk of using banking sector as financial intermediary remained high. Hence, it also showed increasing share of shadow activities.

### **3.2. Arising Problems**

In the second half of 1997, foreign investors, while comparing political declarations of the government with its limited achievements, reassessed the level of investment risk in Ukraine. As a result, an outflow of short term capital followed, additionally exacerbated by the crisis on the financial markets of South East Asia. The outflow of capital exercised pressure on foreign exchange reserves of the NBU and on the exchange rate of hryvnia. The NBU did not allow reserve money to fall in line with foreign assets (Chart 2). Keeping almost unchanged level of reserve money, the outflow

of foreign capital was accompanied by the changing structure of NBU assets, mostly with increase of credit to commercial banks. Trying to prevent a collapse of T-bills market, the NBU raised refinance rate from 16% in October to 35% in November 1997. These steps only in part prevented outflow of foreign capital. Interest rates on T-bills market gradually rose reflecting shrinking demand for government securities with almost sticky supply.

The fall in foreign assets was substituted with credit of the NBU to the government. In autumn 1997 central bank started participating in the T-bills primary market. Since that time the share of T-bills bought by NBU has been consequently increasing. The lower was the share of short-term foreign capital, the higher was the T-bills market's share of the NBU. As of August 21, 1998, the volume of T-bills held by the NBU was equal to 63% of all outstanding debt.

Rising NBU purchases of T-bills to offset nonresident withdrawals sustained strong real growth in domestic credit after August 1997, even despite cuts in refinancing to commercial banks (Table 2).

**Table 2. Quarterly Changes of Main Aggregates From the NBU Balance Sheet**

	<b>NCG</b>	<b>NCCB</b>	<b>NFA</b>	<b>RM</b>
Q1 1997	-2.3%	29.4%		7.7%
Q2 1997	4.2%	3.1%	-104.6%	16.3%
Q3 1997	4.9%	40.1%	1599.2%	11.4%
Q4 1997	10.8%	17.0%	-147.7%	6.8%
Q1 1998	9.3%	-36.4%	-310.6%	-3.8%
Q2 1998	21.0%	3.1%	-557.3%	2.1%
Q3 1998	41.0%	42.3%	13.5%	3.7%
Q4 1998	1.8%	-6.7%	50.1%	14.3%

\* NCG – Net Credit to Government, NCCB – Net Credit to Commercial Banks, NFA – Net Foreign Assets, RM – Reserve Money.

The net NBU credit to the government during the second half of 1997 increased by 16% (1.7% in the first half of the year), partly because of the NBU participation in the T-bills primary market and because of deterioration of the fiscal position (budget deficit in 1997 increased to 6.7% GDP). In the beginning of 1998 the NBU credit to government continued to grow because of renewed fiscal relaxation before the March 1998 parliamentary elections. However, government borrowing from abroad financed the elections as well. The central bank credit to government grew by 32% in the first half of 1998 with almost no changes in the reserve money.

Monetization rose from 10.4% in September 1997 to 12.3% in August 1998. In the second half of 1997 the increase in money demand was determined mainly by growing demand for hryvnia-denominated saving instruments. In the beginning of 1998 the foreign exchange denominated deposits started growing faster than hryvnia ones. Positive tendencies in hryvnia deposits growth weakened.

As the result of deterioration of fiscal position and foreign capital outflow, depreciation accelerated causing depletion of foreign exchange reserves. Conditions on international financial markets deteriorated considerably in the middle of 1998. Among other things, investors' demand for securities in emerging markets dropped significantly. The government experienced problems with rolling over its domestic and external obligations. In the third quarter of 1998 the NBU remarkably extended credit to the government (Table 2). The Ukraine also started negotiating the new EFF credit with the IMF. At such a moment the Russian crisis began.

### **3.3. Crisis**

In 1998 the monetary base increased by 22%. The inflation rate for this period was equal to 20.4%. Inflationary developments in 1998 should be divided into two sub-periods: before and after the financial crisis (August 1998). From the beginning of 1998 up to the end of August the monetary base increased by 4.4% and inflation by 2.3%. From the beginning of September until the end of 1998 the monetary base growth was equal to 16.7% and the inflation amounted to 17.3%.

On August 17, 1998, Russia announced devaluation of the ruble, default on its T-bills (GKO) obligations, and the 90-day moratorium on commercial banks obligations to nonresidents. These decisions of Ukraine's main economic partner (34.4% trade turnover in the first half of 1998) accelerated devaluatory expectation with respect to hryvnia. The NBU began to devalue intensively the official exchange rate following the ruble slump, with the aim of supporting the trade balance. The hryvnia's exchange rate dropped sharply due to rise in devaluation expectations. On the 5th of September, 1998, the NBU revised the parameters of the currency exchange rate corridor from 1.8–2.25 UAH/USD to 2.5–3.5 UAH/USD. The foreign exchange interbank market was closed down and a lot of restrictions were imposed on trade with foreign currencies. Following Russia, in the beginning of October Ukraine restructured public debt owed by nonresidents (99% of the T-bills stock owed by them) and part of portfolio held by commercial banks. Officially, this conversion was voluntary.

As the result of T-bills conversion and closing foreign exchange operations in the interbank market the liquidity of the banking sector deteriorated. Since then the NBU

became the only one purchaser of the government securities. From September to the end of 1998 net credit of the NBU to the government increased by 13.4% and net credit to the banking sector rose by 34.8%. The refinance rate was raised. Injection of additional money into the banking sector with limited instruments of liquidity management caused increase in over-liquidity creating additional pressure on hryvnia.

Money demand remained unstable and money supply was driven mainly by government spending and consequent increase in the monetary base. Monetization of the economy considerably shrank (12.3% in August and 10.2% in October 1998) and the dollarization ratio increased (from 25.6% in 1997 to 39% in 1998). Paradoxically, the aggregate banking sector deposits has grown for last four months of 1998, mostly deposits of households. The most dramatic changes were observed in foreign currency reserves position. Foreign exchange policy aimed at curbing exchange rate fluctuations caused additional pressure on the level of official reserves in the situation of no sources of its rebuilding. The last available official information about the gross reserves of the NBU as of December 31, 1998 states USD 686 million.

## **4. Monetary Policy Instruments**

The NBU had in its disposal the following monetary policy instruments:

- reserve requirements,
- credit auctions (conducted in 1996 and 1997),
- open market operations (conducted since 1997),
- various credit facilities: lombard and refinance credits,
- certificates of deposit (introduced in 1999).

### **4.1. Reserve Requirements**

One of the most effective instruments to control and regulate monetary relations is the required reserve ratio on deposits in commercial banks, which has a direct impact on the volume of money supply.

Since January 1995, the reserve requirements apply to all deposits, including foreign currency deposits. Until April 1997 there was a dual reserve requirement (11% for deposits in hryvnia and 15% for deposits in foreign currency). In April 1997 reserve

requirements were unified at the level of 11%. In November 1997, commercial banks were permitted to use T-bills (purchased after mid-November and held to maturity) to meet their reserve requirements. Additionally, in December 1997 the reserve requirement ratio was raised to 15%. These actions were the result of tightening the monetary policy following the Asian crisis and outflow of portfolio capital from Ukrainian market.

As a result of the Russian crisis and destabilization in financial markets in Ukraine in September 1998, the NBU raised the reserve requirements from 15% to 16.5% of deposits attracted by commercial banks. Moreover, the NBU canceled the clause permitting banks to include their cash and OVDP holdings into their mandatory reserves. Daily monitoring of banks reserve requirements was introduced. On November 1, 1998, the NBU began monitoring the reserve requirements every ten day. On January 1, 1999, the reserve requirement ratio decreased to 15%. On February 10, the NBU has raised the mandatory reserve requirement rates from 15% to 17%, effective in third decade of February.

With scarcity of instruments, reserve requirements become an extremely important tool of monetary policy. Since the August 1998 crisis, this instrument has not been appropriately used, thus its policy has to be significantly improved. The central bank has changed the reserve ratio three times since the crisis. On the other hand, the NBU tolerated non-accomplishment of reserve requirements of about 30 banks. Decision about increasing the reserve ratio in February 1999 actually means punishment of the best banks. Additionally, the reserve requirement is not an instrument of short-term liquidity management. The NBU policy changing reserve ratio very often creates situation when banks could not properly manage their assets and this policy could even make additional liquidity problems. Certificates of deposit should play the role of the instrument of short-term liquidity management rather than reserve requirements, as it was in last half of 1998.

## **4.2. Open Market Operations**

Open market operations conducted by the NBU were aimed at ensuring financial stability by regulating the level of commercial bank liquidity through purchases and sales of government securities in the secondary market. The NBU started the repo operations in 1997. Although, statistics of repo operations are not available, in the light of August 1998 crisis this market almost disappeared. After T-bills conversion conducted in October banks were no more interested in T-bills trading, taking into consideration changed valuation of risk connected with such operations.

### **4.3. Interest Rates Policy**

The NBU's refinancing rate is the key reference rate in the Ukrainian economy. It is a rate at which the NBU lends to commercial banks. This rate was positive in real terms from the beginning of 1996 up to the 1998 crisis. However, the practice of extending the refinance credit at rates lower than the statutory rate continued. Hence, the average interest rate on refinance credit outstanding was often lower than the statutory rate. In 1996, refinance credit rate was not changed and equaled to 62.3%. In the first ten months of 1997, the NBU adjusted its refinancing rate in line with inflation. In October 1997, the NBU sharply increased the refinancing rate from 16% to 35%. Since then, the price of refinancing credit has been growing. While interest rate did not reflect the disinflation trend but rather the variability of the exchange rate and devaluatory expectation (Chart 3).

Real average lending rates charged by commercial banks followed movements in the refinancing rate but the correlation between these two variables was rather weak (Chart 4). As with the refinancing rate, lending rates were also mostly positive in real terms. The average interest rate offered on bank deposits changed more rapidly than lending rates. Since August 1998, the spread between nominal average lending and deposit rates has increased reflecting mainly increase in the price of credit.

The NBU held T-bills auctions. Effective yields on T-bills tracked the NBU refinance rate fairly close (Chart 3). There was one exemption in the end of 1998, when T-bills yields were administratively pushed downwards and investors started leaving the market.

Demand for refinancing credit in 1996 and in the beginning of 1997 was very moderate as banks exhibited caution in their lending activity due to deteriorating quality of their loan portfolios and the continued high real cost of refinancing credit. Instead, banks preferred to hold T-bills which real yields remained very high. The banks' cautious behavior was also reflected in their large holdings of unremunerated excess reserves. During most of this period the NBU continued to restrict refinancing by limiting the number of auctions. December 1996 saw a shift in policy.

In the whole 1997 the net credit to non-governmental sector (commercial banks and other financial facilities) gradually grew (Chart 5). From January to May 1998 the net credit to non-government considerably shrunk reflecting growing net credit to the government from the central bank which replaced the outflow of portfolio investment. Credit to the government crowded out financing of commercial banks. The NBU extended credit to banks in June and September 1998. However, there was no official statement about beneficiaries and reasons of this jump in refinancing. September growth of net credit to banks could be partly caused by the liquidity problems as the result of

T-bills conversion. In addition, increase in reserve requirements could be the reason of the NBU credit to commercial banks expansion. It was the case of December 1997 and September 1998 when the tightening effect of increase in obligatory reserves was offset by accelerated refinancing.

#### **4.4. Certificates of Deposit**

In January 1999 the NBU introduced a new financial instrument – certificates of deposit. First auction was organized on February 5, 1999. Certificate of deposit is a statement of a bank's deposit at the NBU at the specified interest rate, principal and a term ranging from 1 to 180 days. The new security is placed at special deposit auctions and might be traded on the secondary market by resident banks. Participation at certificate of deposits auction is allowed only for those banks, which have no outstanding debt to the NBU and fulfill reserve requirements without any delay. The NBU has the right to buy back issued certificates of deposits before their maturity.

The new instrument has serious limitations. Banks wishing to buy certificate of deposits are supposed to propose conditions themselves, and the NBU selects some of bids. However, this instrument has potential to become quite popular among banks, since it appears less risky than T-bills, because of a good reputation of the NBU. Having been deprived of T-bills, banks are left with no other options for relatively reliable and liquid investment.

As for now results of certificate of deposits auctions are not impressive (Table 3).

**Table 3. Certificates of Deposit' Auctions**

<b>Auction no</b>	<b>Date of auction</b>	<b>Maturity</b>	<b>Term</b>	<b>Nominal ths UAH</b>	<b>No of sold CDs</b>	<b>Value of sold CDs mln UAH</b>	<b>Average yield % per year</b>
1	5.2.99	12.2.99	7	100	144	14.4	27.00
2	10.2.99	12.3.99	30	100	52	5.2	34.73
3	17.2.99	19.4.99	60	100	120	12	39.50

In February 1999 the NBU sold securities amounting to 31.6 million UAH, what is not enough to influence liquidity of the banking sector. However, in the light of limited range of monetary policy instruments available, certificates of deposit might develop further becoming one of the most important instruments of short time liquidity management.

## 5. Exchange Rate Policy

### 5.1. Overview of Exchange Rate Development

Since the introduction of hryvnia developments of the exchange rate policy has gone through several different stages: managed float till the May of 1997, narrow band of UAH 1.7–1.9 per USD, which could be treated as a fixed exchange rate arrangement and several other corridors with wider range (Table 4).

**Table 4. Exchange Rate Band Policy**

<b>Date of announcement</b>	<b>Range (UAH per 1 USD)</b>	<b>Announced date of ending</b>	<b>% devaluation</b>	<b>Maintenance</b>
May 1997	1.7 – 1.9	End of 1997	12	Maintained
October 31, 1997	1.75 – 1.95	First half of 1998	11	Till January 19, 1998
January 19, 1998	1.8 – 2.25	End of 1998	25	Till September 3, 1998
September 5, 1998	2.5 – 3.5	Not announced	40	From 05/09/98 – 08/02/99
February 9, 1999	3.4 – 4.6	End of 1999	35	N/A

There are two major explanations of switching from the floating to the fixed exchange rate. First of all, it was willingness to have a nominal anchor in further stabilization process. Earlier introduction of the corridor was impossible, because of tiny level of international reserves. In addition, uncertainty of exchange rate fluctuations due to an unpredictable public behavior after the introduction of the hryvnia explained very cautious and conservative behavior of the monetary authority. The boom of portfolio investment increased the reserves on the one hand and assured the success of currency reform on the other. Second, this shift was aimed to strengthen the confidence in the conducted policy, and thus, it further increased foreign capital inflow.

In fact, the unofficial corridor of UAH 1.7–1.9 per USD had already existed before May 1997 [10,4]. This is another argument for the hypothesis that authorities were not



fully sure that they could succeed in maintaining the corridor shortly after introducing the hryvnia.

In October 1997 the NBU announced the new corridor of UAH 1.75–1.95 per USD for the first half of 1998. At the day of the new declaration (October 31) the official exchange rate stayed at UAH 1.875/\$. The impact of the Asian crisis (fall of 1997) on the Ukrainian currency market and problems with implementing reforms in Ukraine caused significant pressure on the hryvnia at that time. A slow pace of hryvnia devaluation could be achieved only by the gradual depletion of the official foreign exchange reserves. Since the reserves were not infinite, at that time market participants were not fully confident even in the 1997 corridor maintenance. So, there was little hope in sustaining the second corridor. The only possible explanation of its announcing could be the willingness of the NBU and the government to prevent a portfolio capital outflow in the fall of 1997.

Thus, the announcement of the third, already wider corridor of UAH 1.8–2.25 per USD in January 1998 for the whole 1998 was expected. Unfortunately, this corridor was also unrealistic and was kept only till August of 1998. The lower limit of this band was maintained for four working days from August 24 until September 2, 1998, exclusively thanks to the NBU interventions at the Ukrainian Interbank Currency Exchange (UICE). In fact, the NBU has been the only seller of US dollars at the UICE since July 24, 1998 with the amount of total interventions of \$377 mln for 27 days.

After keeping the UICE closed for two days, on September 5, 1998, the NBU introduced another band of UAH 2.5–3.5 USD, a characteristic feature of which was the unlimited period of its life. It persisted until early February 1999, mainly due to imposed administrative restrictions in the currency market. The NBU imposed restrictions on hard currency operations. They included the decrease in the margin between currency selling and buying rates, mandatory sale of 75% of foreign-currency proceeds from exports for several days, but decreased this requirement to 50% afterwards, restrictions of access of speculators to the UICE and closing the interbank currency market (some equivalent of over-the-counter market, which resisted the NBU control). What is the most harmful in such an activity is that it definitely undermines the public credibility to the NBU's leadership that previously enjoyed the highest trustworthiness among governmental institutions.

On February 9, 1999 a new band within UAH 3.4–4.6 per USD for 1999 was announced. At the first glance it seems irrational to introduce a new exchange rate band, while there is no evidence of failure of the previous one: the official exchange rate at UAH 3.427/\$ persisted from November 6, 1998 until February 10, 1999 without any interventions of the NBU at the UICE (the only interventions at the

amount of \$120 thousands happened on February 8, 1999, which could be treated as a speculation in the eve of announcing the new corridor). However, considerable devaluation was needed for convergence of black market and official exchange rates and the new corridor was a tool for achieving this. In turn, convergence was required for the success in deregulating the foreign exchange market.

Increasing the width of an exchange rate corridor has become a continuous tendency: while the first corridor implies 12% devaluation per annum, the last one maintained (UAH 2.5–3.5/\$) indicated 40% devaluation for five month. It seems that in such a manner Ukraine aimed at switching from fixed to float exchange rate arrangement. In fact this means also the failure in stabilization policy as the NBU was not able to keep the exchange rate stable.

## **5.2. Volume of Trade at the UICE**

Besides US dollars, German Mark and Russian Ruble were traded at the UICE. The volume of US dollars traded at the UICE amounted to \$2977 million in 1997 and \$3851 million in 1998 (Chart 8). The large volume of US dollar was traded in the interbank market where direct influence of the NBU was limited. In fact, the market exchange rate was determined in the interbank market.

The volume of German Mark traded at UICE increased by more than twice in 1998, compared to 1997 (from DM 142 million to DM 312 million) (Chart 7). Generally, the parity between dollar and DM rates has been kept since starting the policy of exchange rate corridor (Chart 6). However, the strategy of keeping hryvnia at too overvalued level of UAH 3.427/\$ while allowing slight devaluation of hryvnia/DM rate (by 0.23% for that period) led to DM appreciation vis-a-vis US dollar. At the same time, in the international financial markets DM was depreciating against the dollar. Therefore, it was not surprising that after introducing the new corridor in February 1999 and depreciation of hryvnia vis-a-vis US dollar, the UAH/DM rate remained unchanged at the UICE.

The volume of Russian rubles traded at the UICE decreased from Rouble 502 million in 1997 to Ruble 231 million in 1998, as result of the Russian financial crisis in 1998.

Starting from January 11, 1999, Euro is also traded at the UICE. In the first two months of 1999 the average volume traded was Euro 0.43 million. Comparing to US dollar or German Mark (\$19.17 million or DM 2.32 million respectively) it was really the negligible amount. The limited interest in Euro transactions could be explained by the lack of arbitrage opportunity of commercial banks due to the absence of cash Euro. Until April 1999 the NBU did not intervene at the UICE to support hryvnia vis-a-vis Euro.

Besides the UICE there are other segments of Ukraine's foreign exchange market: the interbank currency market (IBCM), the international currency market (ICM) [1] and the cash market (CM) (Table 5).

**Table 5. Volume of Operations on Ukraine Foreign Exchange Market (US dollars, German marks, Russian rubles)**

Segment of the currency market	1996		1997		1998	
	Amount	Share of total	Amount	Share of total	Amount	Share of total
UICE	5.3	10.8	3.1	8.3	4.1	14.1
IBCM	10.5	50.5	22.6	60.8	16.6	57.0
ICM	3.2	13.9	5.4	14.5	3.1	10.7
CM	4.8	24.8	6.1	16.4	5.3	18.2
Total	20.9	100.0	37.2	100.0	29.1	100.0

Source: Herald, NBU, 3/99, p.15

### 5.3. Effectiveness of Exchange Rate Arrangement

After near two-year experience with the exchange rate band system we could evaluate its effectiveness. In theory, a fixed exchange rate offers an advantage of "distinctness", since it substantially decreases the risk of currency devaluation and thus, transaction costs. This, in turn, may lead to encouragement of international trade and foreign investment. Besides, the fixed exchange rate system strengthens confidence in the national currency, and thus, decreases inflationary expectations and risk premium, which allows reduction of interest rates.

Unfortunately, the Ukraine situation was somewhat different. First of all, the fixed exchange rate in the inflationary environment provoked an appreciation of the real exchange rate (Chart 9). At the end of 1997, the real exchange rate (WPI based) appreciated by 14% and 4%, compared with 1995 and 1996 respectively, and this led to deterioration of the current account balance (Chart 10). To avoid the impact of real exchange rate appreciation on foreign trade, other transition economies such as Poland, Estonia fixed their exchange rate undervalued. In Ukraine the mid of the first exchange rate band was UAH 1.8/\$ and some experts considered this rate as undervalued since the average dollar wage at that time was considerably low compared with other countries. However, the productivity of labor in Ukraine was so low that even this amount of labor

[1] i.e. Moscow Interbank Currency Exchange Market.

remuneration was very high. Therefore, one of the blunders of the exchange rate policy was reluctance of policy makers to fix the hryvnia undervalued.

Some improvement in the real exchange rate occurred after the mini-crisis at the end of 1997. Substantial correction in the real exchange rate happened only after the August financial crisis in 1998 (Chart 9). At the end of 1998, the real exchange rate (CPI based) depreciated by 50%, 38% and 4% compared with 1997, 1996 and 1995 respectively (at the end of these years). However, the price for such adjustment was extremely high.

Second, in 1995–1997 confidence in the national currency strengthened indeed, but it is difficult to say whether it was the exchange rate regime alone or the overall performance of monetary policy (increase of confidence already began under the floating exchange rate in 1995). Anyway, higher confidence did not bring about any substantial decrease in interest rates. The reason for that was connected with a fiscal situation and very high public sector borrowing requirements. In order to attract more financial resources for fiscal deficit financing, the Ministry of Finance had to increase yields on its securities. Because foreign investors constituted a majority of T-bill purchasers, the Ukrainian government had to increase yields to compete with other emerging markets (for example, with Russia). Such a policy abetted crowding out of credits to the real sector of the economy and attracted only short-term capital to Ukraine, since there were no sound legislation basis in place for direct investments.

Third, introducing exchange rate corridors for a rather short period of time solves the credibility problem for short time, too. This may be another explanation why only a short-term capital came to Ukraine. Frequent and inconsistent changes of corridors as well as widening their ranges did not also contribute to maintaining market confidence.

Fourth, one of disadvantages of the fixed exchange rate arrangement is its vulnerability to speculative attacks. The case of Ukraine is a striking example of that. Though there were some restrictions for trading foreign currency, as soon as a gentle hint of instability of the country appeared, foreign investors started withdrawing their money from the T-bill market and exchanging it into hard currency. Only two ways out were available: lost of foreign reserves or currency devaluation (Chart 11).

The question then arises, what is the engine, which produced this destabilizing effect. Not belittling other factors such as lack of structural reforms and insufficient privatization effort, political tension among different branches of government, etc., we should stress that the main problem originated in the fiscal sphere.

Until the middle of 1995 budget deficit was financed by direct credits of the NBU to the government or, simply, by seigniorage. In the second quarter of 1995 the government securities market started functioning and broader usage of external borrowings was

applied. This decreased pressure on monetary policy on one hand, but created other problems connected with fast cumulating public debt on the other.

Credibility of government actions was relatively low. Therefore, in order to attract investors, the authorities had to set very high interest rates on their securities. Since the economy does not function appropriately, the only way to redeem matured securities was to issue new securities of higher value. As every investor understood that such a pyramid must collapse at some point, the smaller and smaller number of investors was eager to buy Ukrainian T-bills, worsening the public finance stance.

The T-bills market reached its peak of development in the middle of 1997 when new financing far exceeded redemption of matured T-bills, the yield was the lowest and the majority of issued securities were bought by non-residents. After the mini-crisis in the fall of 1997 situation significantly changed: foreigners started to withdraw their investments from this market and the main part of long-term T-bills started being bought by the NBU. While the total volume of T-bills purchased by the NBU in 1997 amounted to UAH 1.2 billion, in the first eight months of 1998 it reached UAH 3.8 billion. Out of this amount, 0.8 billion UAH was spent in August 1998 to pay off the Nomura loan, which was due in that month.

Together with foreign exchange debt obligations, outflow of non-resident investors from the domestic T-bills market was responsible for depletion of NBU foreign reserves and failure of exchange rate corridors at the end of 1997 and in September 1998. The 1997 crisis cost \$0.8 billion of foreign reserves spent during 4 months (September 1997 – January 1998) and lost of confidence after denial of the previously announced corridor of UAH 1.75–1.95/\$ for the first half of 1998.

Following the second financial crisis in August–September 1998, the NBU lost \$688 million of its international reserves in the last five months of 1998. During this period the interventions of the NBU at the UICE totaled \$331 million on the sell position. The multiple exchange rate system became another price of the crisis. The biggest deviation of the black market exchange rate from the official one was at the beginning of September 1998 (of near UAH 0.8 or 30%) and at the middle of November 1998 – about UAH 0.75 or 17%. So-called voluntary restructuring of the internal debt in September – October 1998, which is considered as default by some observers, is an additional price in terms of the loss in public confidence.

## **5.4. Concluding Remarks**

Summarizing, we would not want to say that the choice of the exchange rate band regime was a one big mistake. Given the existing restrictions: insufficient international reserves for currency board arrangement and non-developed financial markets and too

limited domestic credibility for free-float, the choice of exchange rate regime was rather limited.

However, sound fiscal and monetary policies are needed for success of exchange rate corridor. Problems in the public finance sphere became the fundamental reason of financial crises and loss in credibility. The exorbitant appetite of the budget was financed by heavy external and internal borrowings. At the time of debt repayment a depletion of international reserves took place and this influenced foreign exchange market conditions.

There were two options: (1) Ukraine could succeed in keeping hryvnia within the band, but costs of doing it might be very high (depletion of foreign exchange reserves) or (2) Ukraine could fail to maintain the band, which would undermined its credibility and this is also very expensive. Even though we would assume that some justifications for exchange rate corridor for 1997 exist, the corridor of 2.5–3.5 UAH/\$ announced at the beginning of September 1998 was kept using only the administrative restrictions.

## **6. Banking System**

### **6.1. Overview**

In the period of 1996–97, the Ukrainian economy experienced first signs of macroeconomic stabilization. The inflation rate decelerated. This gave a chance to the Ukrainian banking system for reorganization and restoring its intermediary function in redistributing credit to the economy. Unfortunately, the 1998 revealed that this chance was largely missed due to inappropriate economic policy, political reasons, and lack of determination in implementing reforms. In particular, a macroeconomic policy mix (proportions of monetary and fiscal adjustment) was not properly chosen restraining consistency and credibility of overall economic policy.

Additionally, many problems concerning legal framework of banking system operation did not obtain sufficient attention in the parliament. There is still evidently a high "politicization" of financial sector. All large state-owned and former state-owned banks are still used for direct lending to loss-making enterprises for "social" reasons under political pressure. At the same time, however, Ukraine slowly started developing infrastructure of a market-based financial system and succeeded in implementing one of the best funds payment system in all the Central and East Europe and former Soviet Union. Apart from the above, for last three years, Ukrainian commercial banks have remarkably increased their statutory capital as a result of new regulations issued by reorganized banking supervision department of the NBU.

## 6.2. Sector Structure

As of January 1, 1999, the Ukrainian banking sector consisted of 213 organizations registered as commercial banks. A large number of banks do not operate due to poor financial stance. More than 30 banks are classified for liquidation or are in various rehabilitation programs, which means that 178 banks effectively work in Ukraine and regularly report to the NBU (Table 6). 54 banks are considered as problem banks.

**Table 6. Distribution of Banks by Statutory Capital**

US\$ Million	1995	1996	1997	1998
Number of Banks				
Under 0.5	102	20	2	2
0.5-1.5	81	100	67	64
1.5-3.0	16	35	51	67
3.0-5.0	3	17	33	18
5.0-40.0	7	13	33	26
Above 40.0	1	3	3	1
<b>Number of reporting banks</b>	<b>210</b>	<b>188</b>	<b>189</b>	<b>178</b>
Number of registered banks (end of year)	230	229	227	213
Number of new registered banks	3	10	8	2
Number of liquidated banks	1	11	10	16

Source: Monthly Bulletin, NBU

The large number of registered banks comes from the fact that, following independence, low entry costs (no minimum statutory capital requirements) and limited banking supervision created friendly conditions for many new private entrepreneurs to open banks. In February 1996, the NBU acquired the full authority to license banks and began to re-license all the banks and increased the minimum statutory capital requirement [2].

[2] From January 1, 1997 all banks were required to have at least ECU 0.5 million of capital; from July 1, 1997, ECU 0.75 million; and from January 1, 1998, ECU 1 million. Many banks have not fulfilled the minimum capital requirement of ECU 1 million, yet. The new deadline for this requirement is April 1, 1999.

New regulations stopped the virtually free of cost entry into the sector while the re-licensing procedure started eliminating marginal weak banks from the financial sector. As a result, the growth in the number of banks virtually stopped in 1996. Moreover, the number of registered and operating banks remarkably decreased in 1998. The sector now comprises two state-owned banks (Oschadny Bank and Eximbank), three former state-owned banks (Prominvestbank, Bank Ukraina, Ukrsotsbank), two large private banks (Bank Aval and Privatbank), nine operating foreign banks, and a large number of small and medium banks.

The total assets of the Ukrainian banking system accounted for approximately UAH 21.5 billion (USD 6.2 billion) at the end of 1998. The small size of the banking system is partly due to the high inflation episode of 1993–95, which eroded the assets, and liabilities of the banks. The USD equivalent of the assets significantly contracted after September 1998 crisis and devaluation.

The largest seven banks mentioned in the previous paragraph account for about 53 percent of the sector's assets and hold a dominant position in the financial sector of Ukraine. All these large banks, while still keeping monopoly power in their specialized sectors, have successfully started developing new products in order to become more universal. Additionally, these banks are tightly connected with different structures of the government through fulfilling quasi-Treasury functions (i.e. servicing budgetary accounts). Although those functions remain remunerative, the government connections also put pressure on the banks to lend to loss-making enterprises for political reasons, which seriously undermines their commercial role. As a result, the most successful of new-established small banks (free from any obligations to the state) gradually obtain larger and larger share of the market. In the middle of 1998, the share of the seven largest banks in the sector's assets was higher by 5 percent and accounted for 58 percent.

### **6.3. Sector Performance**

Although some individual banks might perform successfully, the overall picture of banking sector did not reveal significant improvement in the period of financial stabilization. Results of the banking system basically reflect performance of a real economy. Therefore, the huge decline of real output in the official sector as well as growing informal sector negatively influenced performance of the banking system. Additionally, the high inflation episode through 1995 resulted in highly negative real interest rates on credit and deposits (Table 7). As a result, the volumes of real credit in the financial system substantially declined, hand in hand with significant reduction of



credit maturity. Decelerating inflation (resulting mainly from reduced direct monetary financing of budget deficit) laid the basis for certain price stabilization, and the introduction of a new denominated currency in September 1996. This, in turn, prevented commercial banks from taking advantage of a distorted, high inflation environment, which provided quick ways to profit through exchange rate speculations and high returns on domestic currency lending. Spread between credit and deposit rates of commercial banks decreased from more than 50 percent in 1995 to about 30 percent in 1997, and above 32 percent in 1998.

**Table 7. Interest Rates (%) and the Money Multiplier**

	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
NBU Refinance rate (average)	131	62.3	24.6	61.6
Comm. Banks Deposit rate (weighted average)	70.29	33.63	18.21	22.3
Comm. Banks Credit rate (weighted average)	122.7	79.88	49.12	54.5
Spread	52.61	46.25	30.91	32.2
Inflation rate (Dec-to-Dec)	181.6	39.7	10.1	20.4
The money multiplier	1.93	1.85	1.76	1.79

Source: Monthly Bulletin, NBU and own calculations

A strong statutory link between commercial banks lending rates and the NBU refinance rate was removed in the stabilization period. Now, interest rates are mainly market determined with the NBU refinance rate remained as the main reference rate in the system. Through much of 1996 and 1997, interest rates on commercial loans exceeded the NBU refinance rate and both rates were positive in real terms. It concludes that directed credits by the government, which are seldom exercised yet, were priced at real positive values [3]. Although during a period of 1995–97 all nominal interest rates were decreasing, real interest rates remained high since inflation decelerated much faster and banks did not sufficiently improve its performance.

The crises reflected all weaknesses and insufficient development of the banking sector. Positive tendencies (i.e. falling interest rates on credits and deposits as well as declining spread) virtually stopped due to the crisis in the second half of 1998.

In the economic situation of 1996–98, the intermediary function of the banking

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[3] Although rates on directed credits refer to the NBU refinance rate, probability that those credits would be paid off remained very low. Therefore, in fact, those credits were not properly evaluated in terms of involved risk.

system was limited. Excessive public expenditures did not leave room for market-based investment as a result of the crowding out effect. It means that financing the economy went through the public sector pushing up real interest on commercial credits. Indicators in Table 8 prove that net domestic credit to the government significantly increased in 1998 while credit to economy obtained only slightly higher level each year (both indicators expressed as percentage of GDP).

Furthermore, banks were not able to attract new depositors to expand a base for further lending activity. Because the public has had a limited confidence in the banking system, deposits have not grown substantially in real terms. Domestic currency deposits stayed at the extremely low level of 4 percent of GDP in 1996 and 5 percent of GDP in 1997. With a limited deposit base and an increasing problem of non-performing loans, banks have constrained the expansion of credit to the enterprise sector (prolonged and overdue loans account for about 30 percent of total loans). The situation even worsened after August 1998 when domestic deposits started falling and reached 4.8 percent of GDP at the end of 1998.

This is also closely related to excessive budget expenditures that kept high real interest rates preventing banks from reducing profit margins. Banks have invested their assets in the lucrative T-bills improving their profitability and reserves. This form of investment was also dramatically reduced due to the financial crisis and T-bills conversion.

Finally, a large number of investment projects were financed through direct credit lines of large banks originally funded by the government and/or the central bank. The reason for persistence of direct and problematic loan approvals comes from interrelation between management of banks, enterprises, and governmental agencies. In a process of banking system formation, large state enterprises acquired majority of shares in banks servicing particular sectors. Through various channels, those shares were further transferred to employees of banks and enterprises as well as to their clients including members of the government. As a result, decision-making process regarding crediting different sectors heavily depends upon "connections" and is sensitive to political pressure. This procedure eliminated "healthy" refinancing of the banking system and market mechanisms for investment, as well.

The main indicators of financial sector activity presented in tables 7 and 8 clearly show that banking intermediation is extremely shallow and process of remonetization was going very slowly. In particular, both broad money and its domestic currency component remained low relatively to GDP. Additionally, cash accounts for approximately about 50 percent of the domestic money supply and exceeds deposits component. As a result of higher growth of cash in relation to deposits, the money multiplier was falling indicating insufficient pace of banking system development and its limited intermediary functions.

Table 8. Monetary Indicators

	1996		1997		1998	
	mln UAH	% of GDP	mln UAH	% of GDP	mln UAH	% of GDP
<b>Com. Banks credits</b>	5452.2	6.7%	7294	7.8%	8875.7	8.5%
Net credit to Government	5995.3	7.4%	7096.1	7.6%	13478.6	13.0%
Credit to Com. Banks	701.2	0.9%	1533.2	1.6%	1335.5	1.3%
<b>Broad Money</b>	9023	11.1%	12448	13.3%	15432	14.9%
Hryvnia broad money	7306	9.0%	10776	11.5%	12175	11.7%
Cash	4041	5.0%	6132	6.6%	7158	6.9%
Domestic currency deposits	3265	4.0%	4644	5.0%	5017	4.8%
Foreign currency deposits	1717	2.1%	1672	1.8%	3257	3.1%

Source: Monthly Bulletin, NBU

## 6.4. Building Legal and Technical Infrastructure

Periods of high inflation and administrative regulations (e.g. "kartoteka 2") [4] seriously undermined household and enterprise confidence to the banking system and saving. The NBU tries to restore faith in saving in banks by forcing implementation of a deposit insurance fund. Unfortunately, preparation of laws and the legislative process are going very slow. Furthermore, credible implementation of a system of deposit insurance require transparent accounting standards and the NBU authority to handle liquidation (or rehabilitation) of insolvent banks. While the International Accounting Standards (IAS) are in a process of implementation, the amended banking laws are unlikely to be passed by the Ukrainian Parliament in a form that would be consistent with market oriented reforms.

This lack of a clear legal base for operation of the NBU, in turn, forces a large dose of discretion in formulation of both monetary policy and banking supervision. Banking sector suffers from unclear formulation of monetary policy targets and instruments,

[4] This regulation does not allow enterprises opening more than one bank account and allows different institutions to control the flow of enterprises' money resources at the commercial bank account.

holding relatively large precautionary balances that in turn limits the growth of credit to the real sector. Because progress on the legal base is problematic, the NBU tries to extensively use its own regulations to improve performance of the banking system. It mainly concerns supervision department, which significantly strengthened its capacity under foreign technical assistance [Landy, 1997].

## **6.5. Fragile Stability of Banking System**

Deteriorating stance of public finance, problems with rolling over short-term maturity and high interest rates on T-bills had to undermine credibility of economic policy and to jeopardize stability of the banking system. In the middle of 1998, T-bills accounted for 12 percent of total banking assets and for about 30–40 percent of liquid assets. The share of T-bills in total assets dropped to 8 percent at the end of 1998 (Chart 12). Additionally, T-bills constituted the only acceptable form of collateral for interbank credit operations. Thus, when the government started facing problems with servicing its obligations and tried to induce T-bills restructuring, most of small banks, which had more resources involved in T-bills (about 30 percent of assets), remained short of liquidity. At the same time, uncertainty in the financial system prevented "liquid" banks from lending since there was no credible information about solvency of other banks and no form of collateral available. As a result, banks that usually met prudential regulations of the NBU failed to do so and turned to the central bank to support their liquidity. Fortunately, foreign exchange positions of commercial banks looked much favorable and the NBU only occasionally intervened to help banks.

In anticipation of domestic currency devaluation, banks took long open foreign exchange positions. Although the NBU did not allow keeping foreign exchange open positions, in the critical period approximately half of banks managed to increase those positions. Furthermore, the structure of foreign exchange liabilities was favorable. The foreign exchange liquidity ratio was around 15 percent which means that on average high liquid F/X liabilities accounted for only 15 percent of high liquid F/X assets. It implies that banks had enough liquid assets to meet further unexpected withdrawals of F/X liabilities.

Paradoxically, banks have avoided serious financial problems in the F/X market due to the fact that they have not been involved in off-balance sheets operations (i.e. futures) like Russian banks. Low international rating of Ukrainian banks did not allow them borrowing in international financial markets significantly reducing exposure to F/X risk. As a result, devaluation did not hurt Ukrainian banks to such an extent as it did in Russia.

The overall picture of banking system liquidity, however, was mixed. Liquid assets were increasing mainly due to foreign exchange revaluation. While on the liabilities side, only hryvnia-denominated corporate deposits remained stable and many other categories were decreasing. Chart 13 presents the structure of banking system liabilities at the end of 1998.

## **6.6. Summary**

Despite obvious problems of low profitability [5], limited statutory capital, and insufficient loan loss provisioning, the Ukrainian banking system has avoided so far serious financial stress.

The Ukrainian banking system is still strongly concentrated, but becoming less so. Seven largest banks have decreased its share in the total banking assets. Banks increasingly resist the political pressure for direct lending. Nevertheless, they continue to enjoy large government deposits that come with their quasi-Treasury functions. With the country's efficient payment system, banks can operate with limited liquidity. The closure of few medium-sized banks has taken place without system-wide implication, due to limited interbank activity [6].

Some building blocks of "healthy" financial system are being developed and others are already working in Ukraine. Progress in improving a structure and overall performance of the financial sector is not, however, sufficient. A lot of important issues have to be still addressed, among them how to deal with problem banks, how to consolidate the fragmented banking sector and finally how to restore main functions (i.e. intermediation) of the market-based financial system.

## **7. Conclusions**

General conclusion from the above analysis is the following: the basic reason behind financial crisis in Ukraine was unsustainable policy mix. As the monetary policy could be evaluated as tight, the fiscal policy was mostly expansionary. Problems in public finance sphere were the fundamental reason of crisis and loss in credibility of currency. The

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[5] As of January 1, 1999 net profits of the banking sector were equal to 448.7 million UAH, and in comparison with the previous year decreased by 500 million UAH.

[6] For more detailed discussion of the Ukrainian interbank market, see Górski [1999].

exorbitant appetite of the budget was financed by external and internal borrowings. As long as the foreign capital flew into Ukraine there were no negative monetary consequences. With the outflow of nonresidents' capital the central bank started supporting budget buying T-bills in the primary market and giving direct credits to the government. Being responsible for the main goal of monetary policy, which is the price stability, the NBU was changing the structure of its assets. Remaining problems of the banking sector and public finances have not been solved because of reasons rooted in political economy. Too many interests would be affected and there is no political will to change the existing *status quo*.

Evaluating the monetary policy in the context of existing legal framework and fiscal policy pressure we could say that the price stability has been preserved. As the fiscal problems are not solved and the banking sector is weak and underdeveloped, a new wave of financial crisis is still possible (i.e. when the budget has to pay off restructured T-bills or the devaluatory expectations blows up). Consequently, the fiscal reform is a must for Ukraine.

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## Appendix

Chart I. Quarterly Percentage Changes of Exchange Rate (UAH/USD), CPI, RM and M2

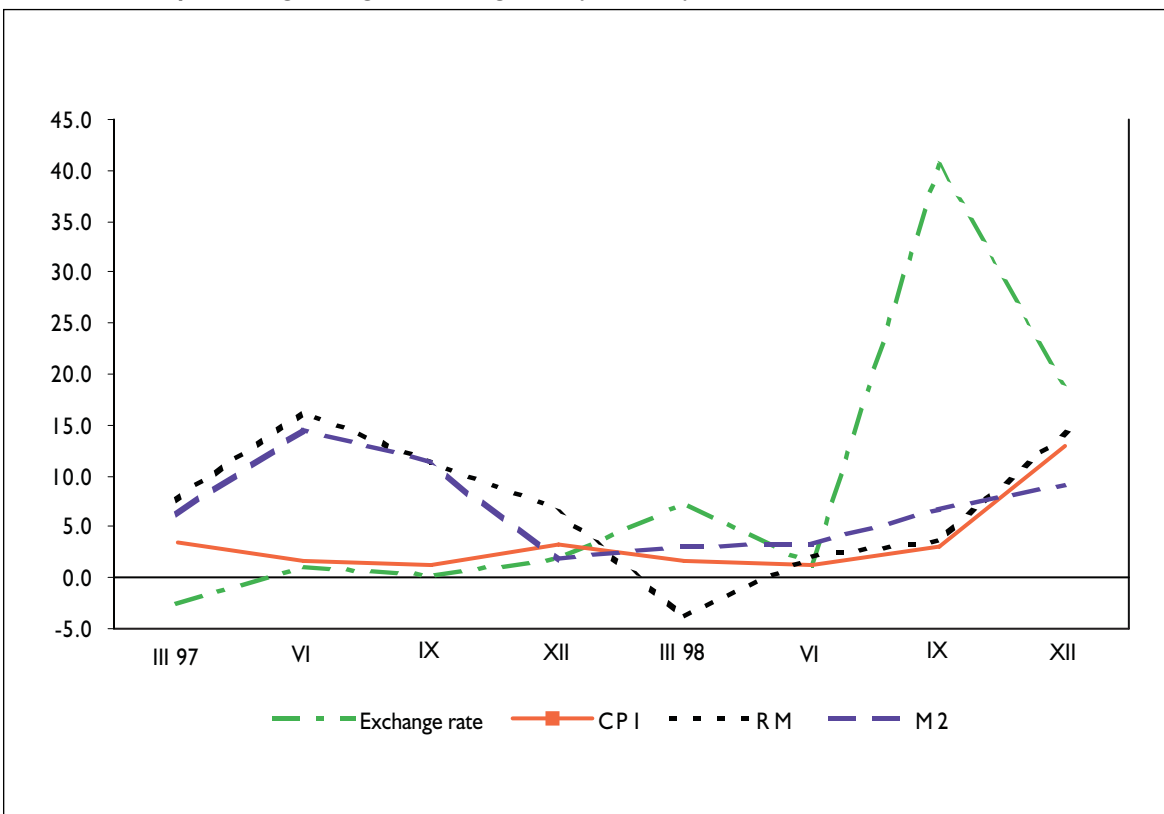
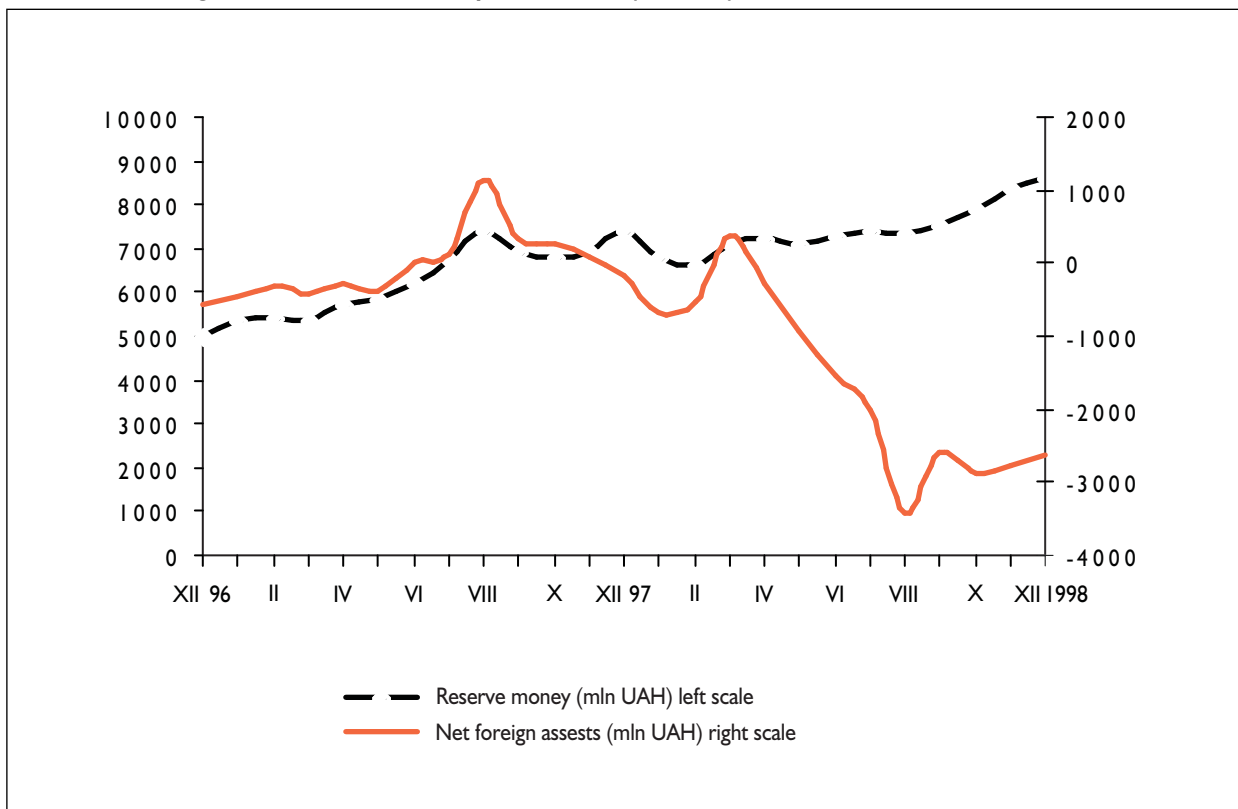
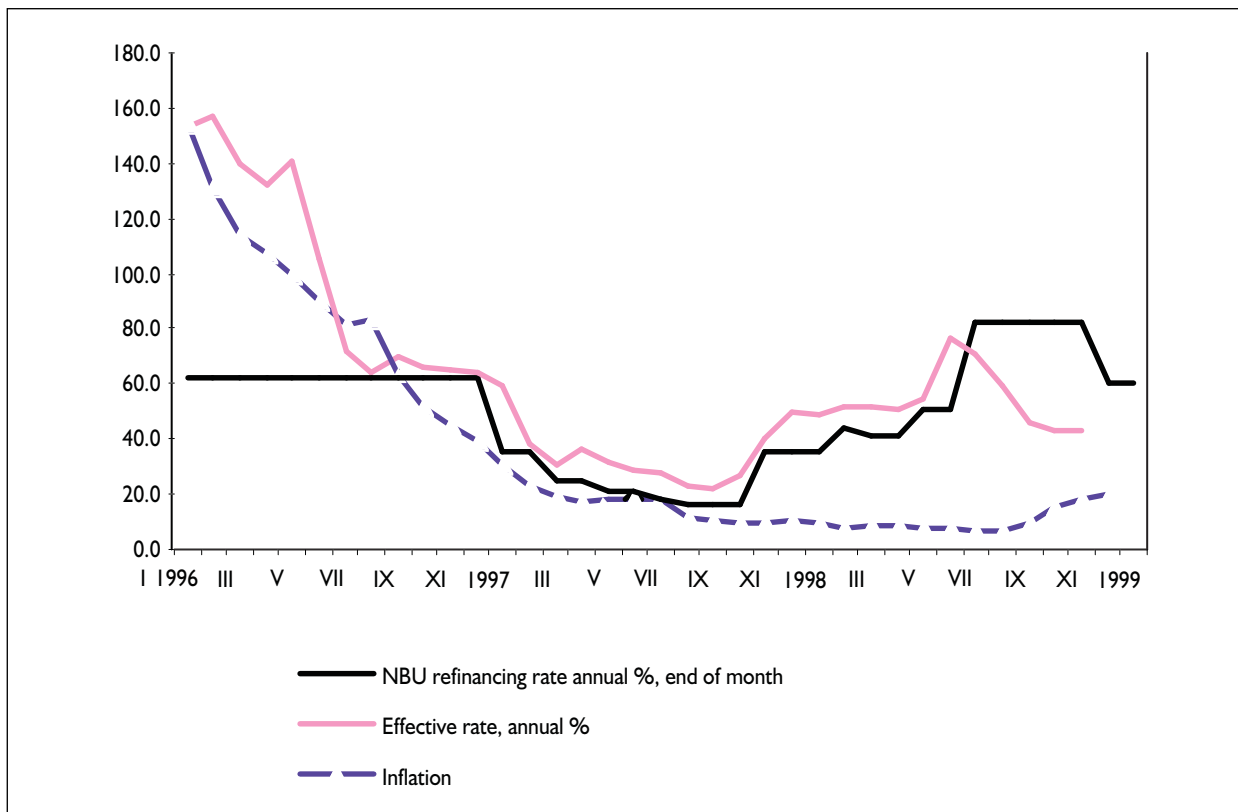




Chart 2. Net Foreign Assets and Reserve Money in 1996–1998 (mln UAH)



**Chart 3. Inflation, NBU Refinancing Rate, and Effective Rate on T-bills**

The graph displays three interest rate series over time from December 1995 to December 1998. The Y-axis represents the interest rate percentage, ranging from -6.0 to 8.0. The X-axis shows time in quarters, with labels for December of each year (XII 95, XII 96, XII 97, XII 98). The legend identifies the series: Real average lending interest rate (black line), Real average deposit interest rate (purple line), and Real refinance rate % monthly (pink line). All three rates show a significant downward trend starting in late 1997, reaching a sharp decline in early 1998, followed by a recovery in late 1998.

Year	Quarter	Real average lending interest rate, %	Real average deposit interest rate, %	Real refinance rate % monthly
1995	Dec	6.2	-0.5	6.5
1996	I	6.0	-4.5	5.5
1996	II	6.4	-3.5	6.0
1996	III	5.8	0.5	5.5
1996	IV	6.0	0.5	4.8
1996	V	6.4	2.5	5.0
1996	VI	5.8	2.5	4.0
1996	VII	5.0	2.0	3.5
1996	VIII	5.0	-3.5	3.0
1996	IX	4.3	0.2	2.5
1996	X	5.3	0.8	3.3
1996	XI	4.3	1.0	2.2
1996	XII	4.3	1.2	2.5
1997	I	5.0	0.0	2.5
1997	II	4.8	1.5	2.5
1997	III	4.8	1.5	2.5
1997	IV	4.2	1.0	1.5
1997	V	3.5	1.5	1.2
1997	VI	4.2	1.0	1.5
1997	VII	3.8	1.2	1.5
1997	VIII	3.5	0.5	1.5
1997	IX	2.2	0.2	0.5
1997	X	3.8	0.5	2.5
1997	XI	3.2	0.5	2.2
1997	XII	3.0	0.2	2.5
1998	I	3.2	1.5	2.8
1998	II	3.5	1.5	3.0
1998	III	3.8	0.5	3.0
1998	IV	4.0	1.5	3.5
1998	V	3.8	1.8	4.2
1998	VI	3.8	2.0	5.8
1998	VII	3.8	1.5	5.8
1998	VIII	3.8	1.8	3.8
1998	IX	-4.0	-4.5	-3.5
1998	X	-4.5	-4.8	-3.5
1998	XI	1.8	-0.5	3.5
1998	XII	2.2	-1.0	3.5

**Chart 5. Net Credit to Government and Net Credit to Commercial Banks from the NBU Balance Sheet**

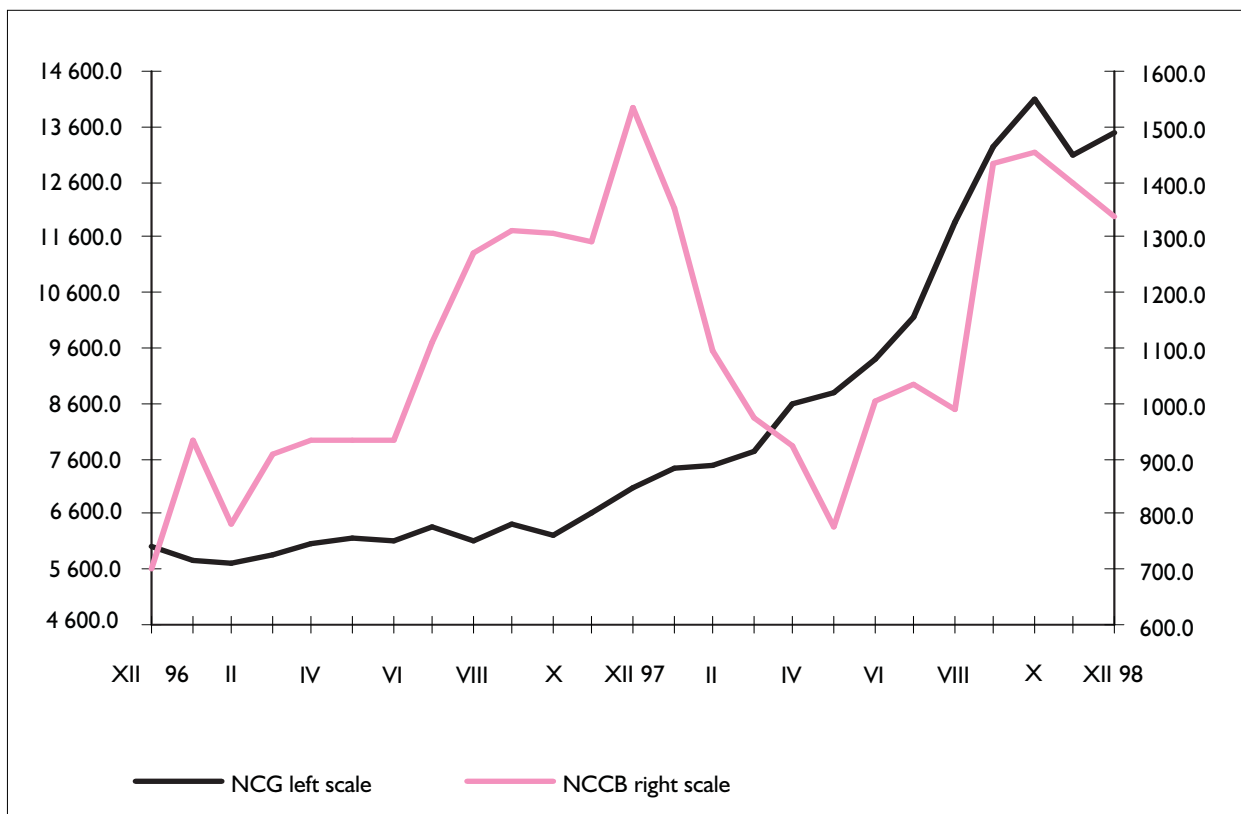
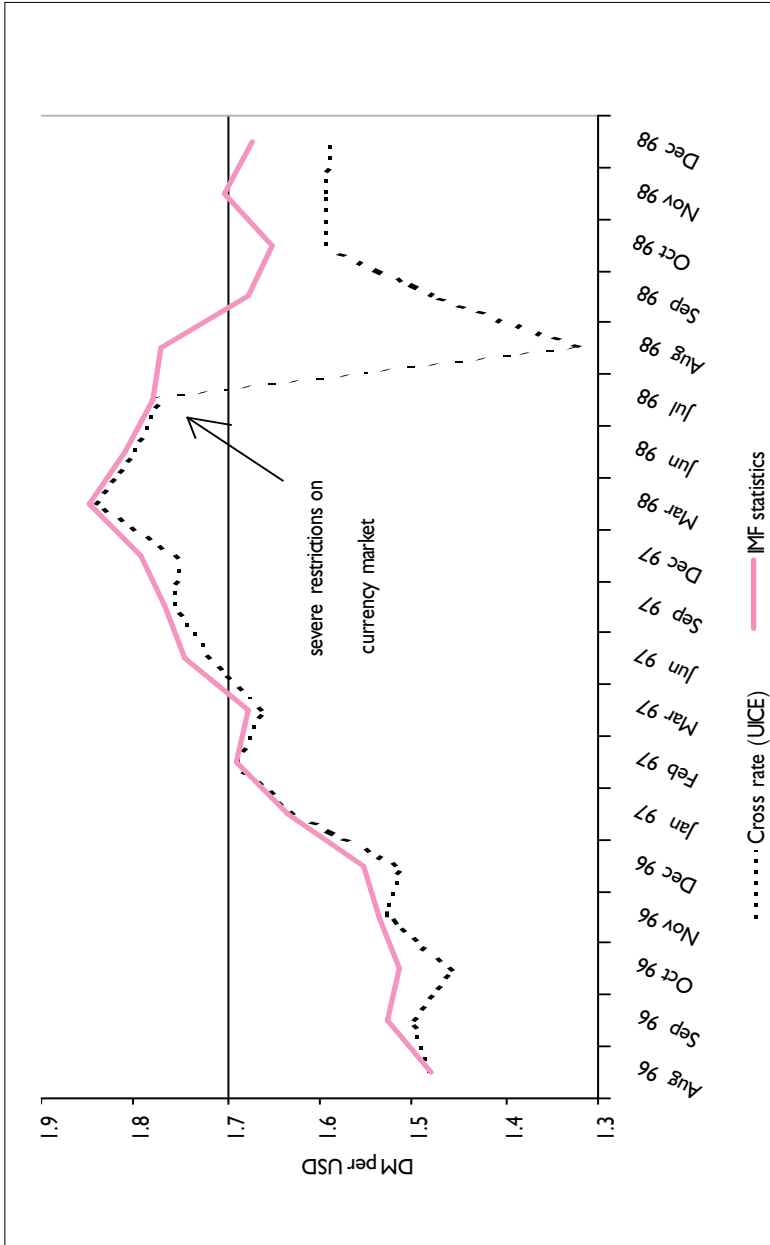
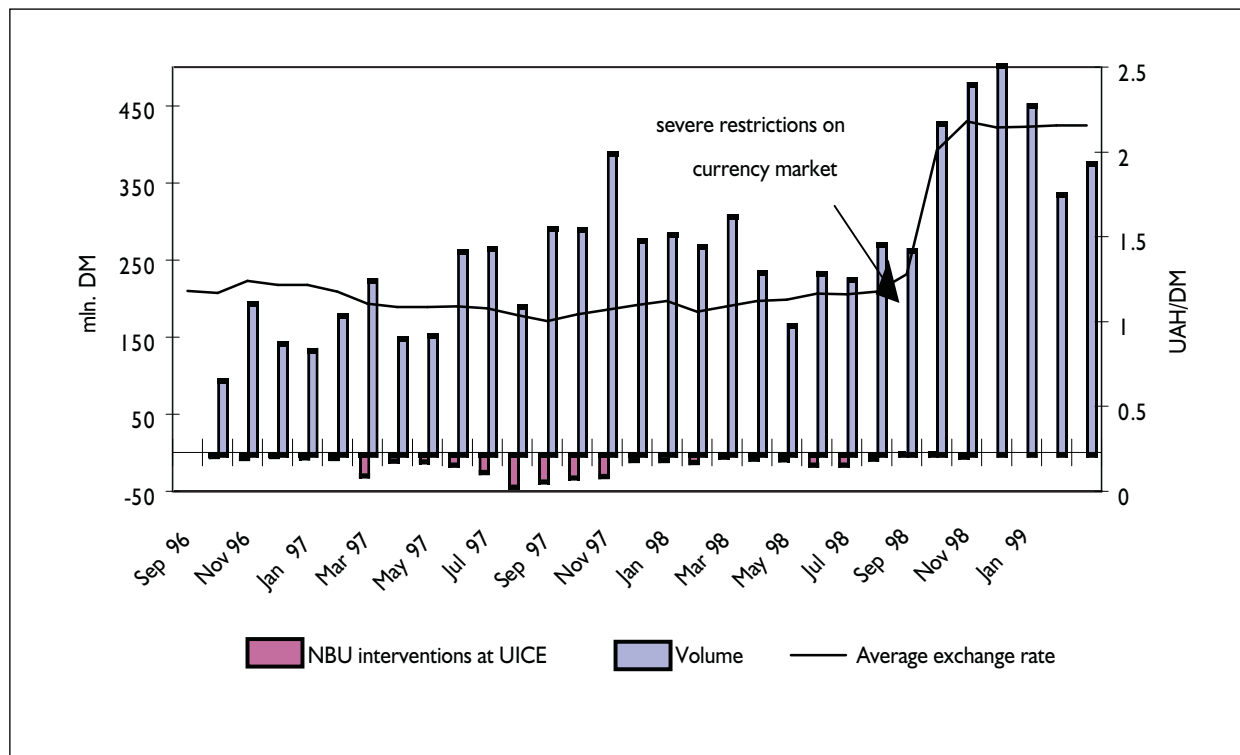


Chart 6. German Mark Exchange Rate Policy



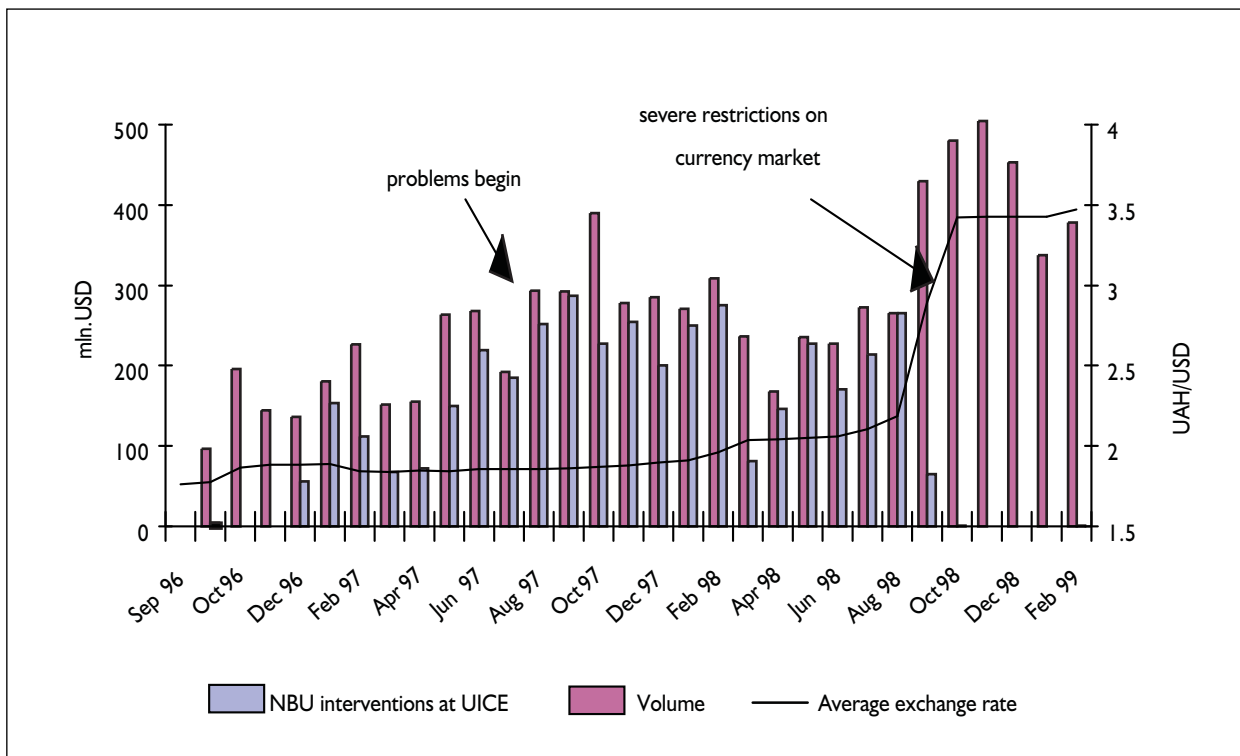
Source: IMF statistics, Financial week

**Chart 7. Trade of German Mark at the UICE**



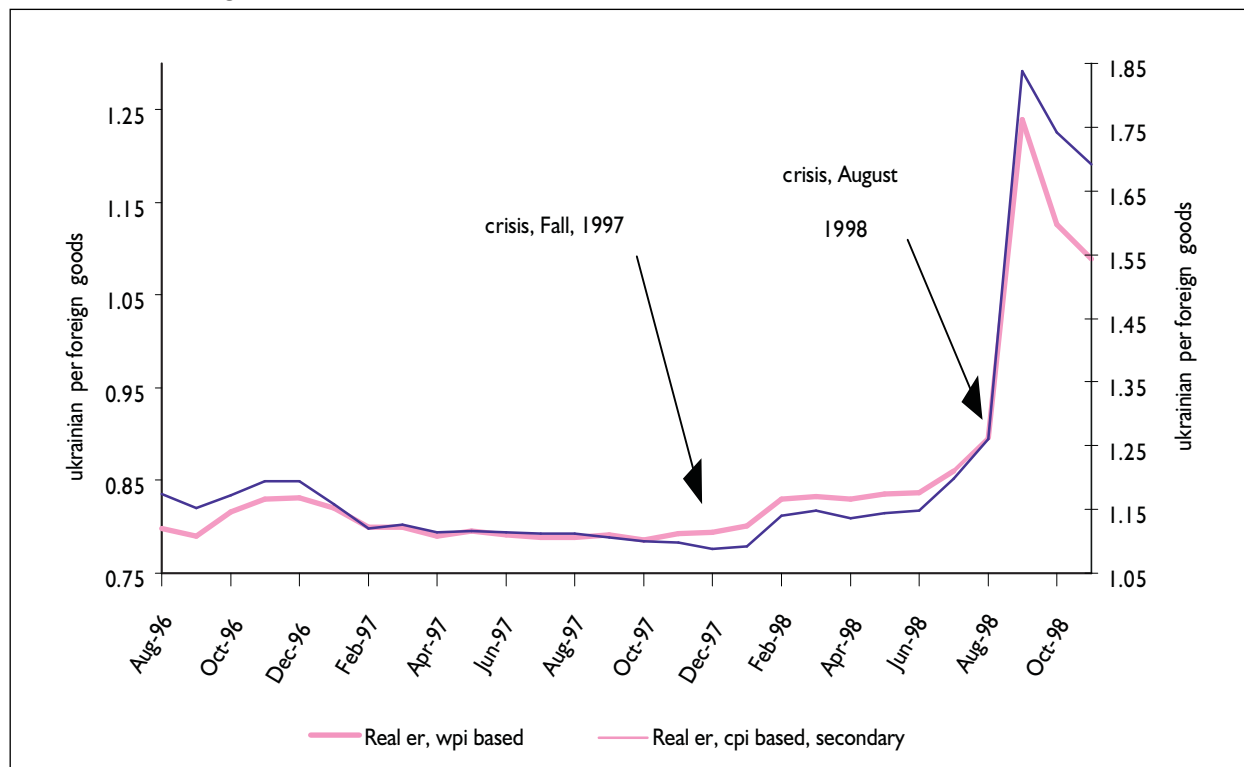
Source: Financial week

**Chart 8. Trade of US Dollar at the UICE**



Source: Financial week

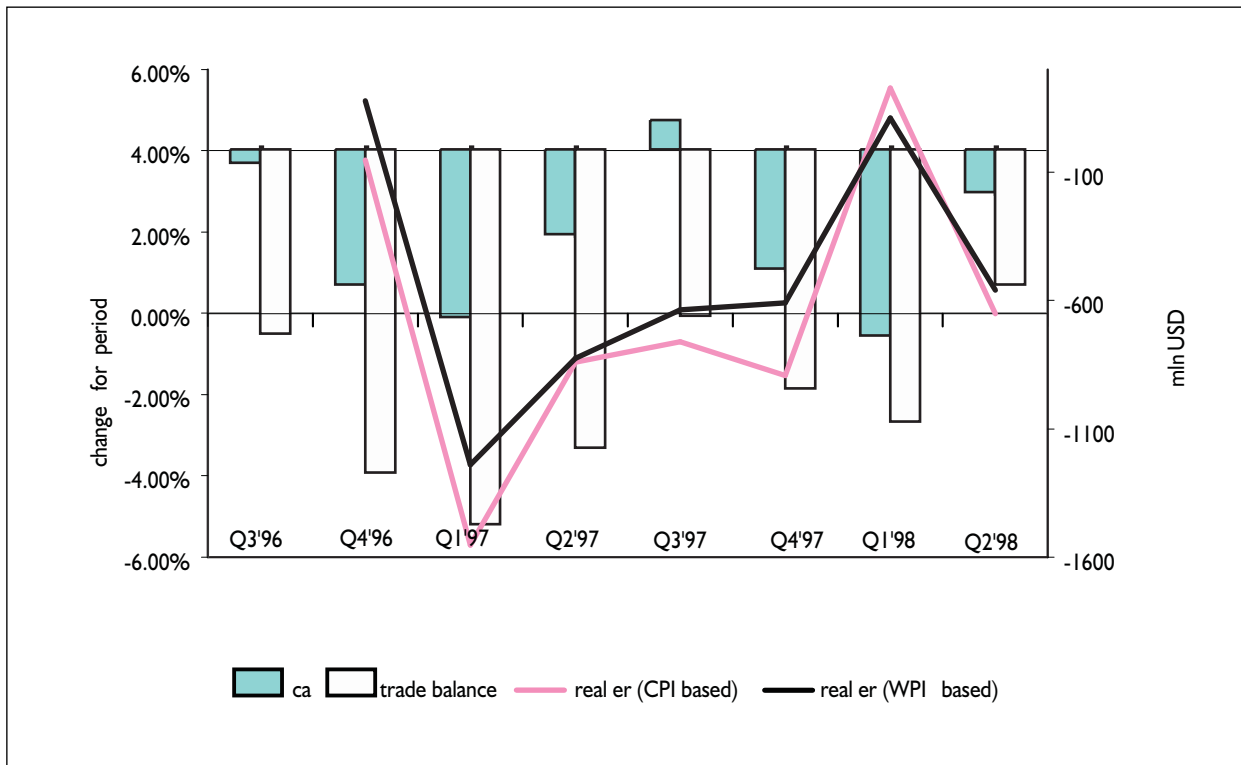
Chart 9. Real Exchange Rate



Source: Financial week, Statistics committee

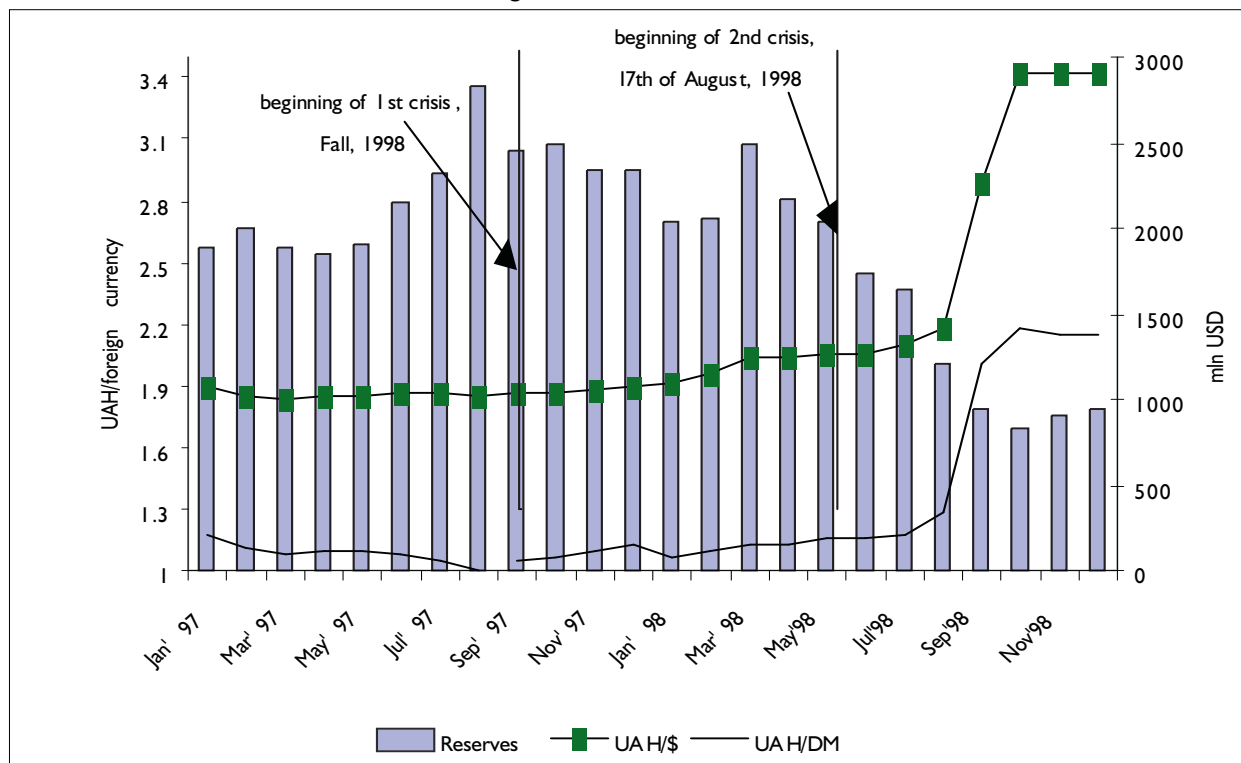


Chart 10. Balance of Payment and Real Exchange Rate



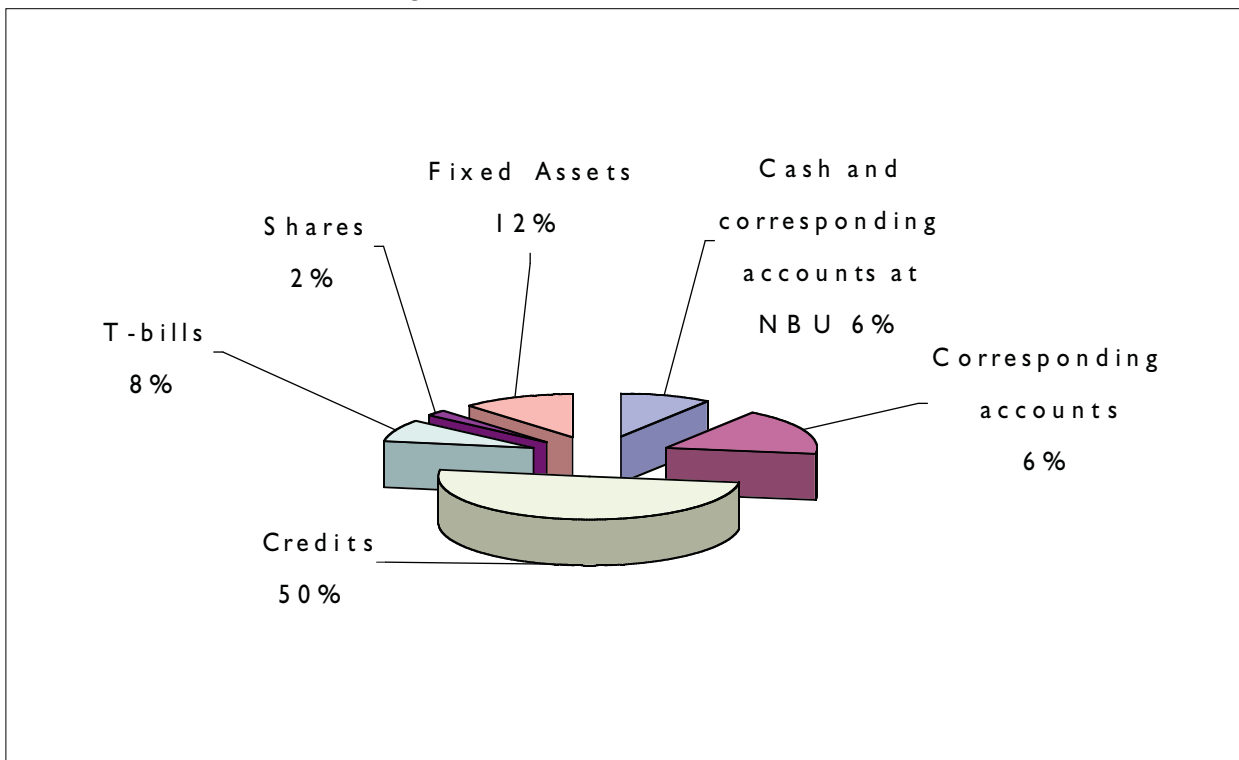
Source: NBU, Financial week, and Statistics committee

**Chart 11. Gross International Reserves and Exchange Rate**

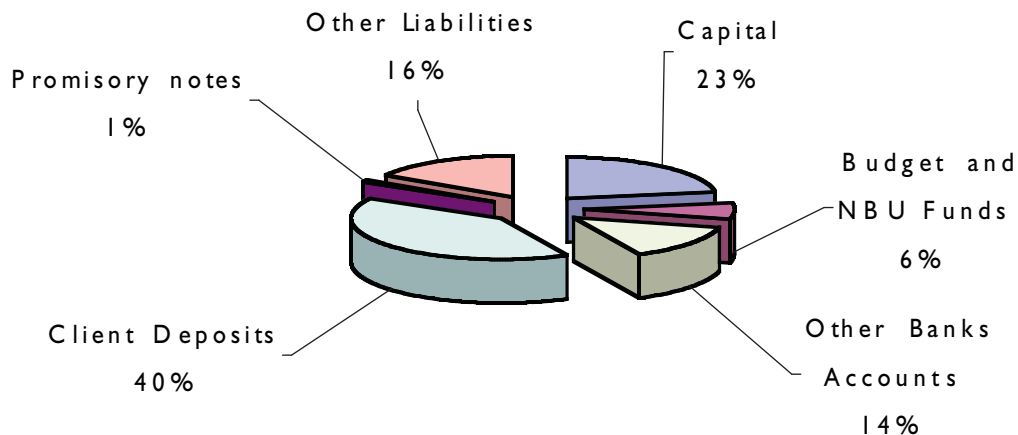


Source: NBU, Financial week

**Chart 12. Structure of Ukrainian Banking Sector Assets as of the end of 1998**



Source: Herald, March 1999, NBU

**Chart 13. Structure of Ukrainian Banking Sector Liabilities as of the end of 1998**

Source: Herald, March 1999, NBU

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